

60,130-1847; 02MRA0353

IN THE CLAIMS

1. (Currently Amended) A brake rotor, comprising:

an annular disc defining an axis of rotation and having first and second brake portions, the first brake portion being connected to an annular mounting flange;

a first radially inner flange wall defined by the annular mounting flange, the first radially inner flange wall having a plurality of circumferentially spaced mounting holes;

a second radially inner flange wall defined by the second brake portion, the second radially inner flange wall being positioned further away from the axis of rotation than the first radially inner flange wall:

a plurality of recesses in the first radially inner flange wall, each recess being disposed circumferentially between adjacent mounting holes; and

a plurality of ventilation vanes positioned between the first and second brake portions, wherein at least one ventilation vane includes an inner vane portion extending inwardly of a radially inner edge-the second radially inner flange wall of the second brake portion.

2. (Previously Presented) The brake rotor as defined in claim 1, wherein the inner vane portion projects from the annular mounting flange.

3. (Previously Presented) The brake rotor as defined in claim 1, wherein the inner vane portion is substantially radially in line with a recess of the plurality of recesses.

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4. (Previously Presented) The brake rotor as defined in claim 1, wherein a radially inner edge of the inner vane portion defines a circle having a diameter.
5. (Currently Amended) The brake rotor as defined in claim 4, wherein the plurality of recesses comprises a plurality of grooves wherein each groove has a radially outer edge defining a groove radially outer edge circle having a diameter that is less than the diameter of the circle defined by the radially inner edge of the inner vane portion.
6. (Currently Amended) The brake rotor as defined in claim 4, wherein the plurality of circumferentially spaced mounting holes defines a mounting hole pitch circle diameter that is substantially the same as the diameter of the circle defined by the radially inner edge of the inner vane portion.
7. (Currently Amended) The brake rotor as defined in claim 4, wherein the plurality of circumferentially spaced mounting holes has have radially inner edges defining a mounting hole radially inner edge circle having a diameter that is less than the diameter of the circle defined by the radially inner edge of the inner vane portion.
8. (Previously Presented) The brake rotor as defined in claim 1, wherein each of the plurality of recesses is in the form of an axially oriented groove.

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9. (Previously Presented) The brake rotor as defined in claim 8, wherein each axially oriented groove has a substantially semicircular radially outermost end, with each semicircular radially outermost end having a center that defines a groove end center pitch circle diameter.
10. (Previously Presented) The brake rotor as defined in claim 9, wherein the groove end center pitch circle diameter is less than a diameter of a circle defined by a radially inner edge of the inner vane portion.
11. (Previously Presented) The brake rotor as defined in claim 1, wherein the annular disc is axially offset relative to the annular mounting flange.
12. (Previously Presented) The brake rotor as defined in claim 11, wherein the annular disc axially overlaps the annular mounting flange.
13. (Currently Amended) The brake rotor as defined in claim 1 ~~in which~~wherein the first brake portion is connected to the annular mounting flange by a continuous annular region.
14. (Currently Amended) The brake rotor as defined in claim 1 ~~in which~~wherein the first and second brake portions, the annular mounting flange, and the plurality of ventilation vanes are all formed as a single unitary component.

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15. (Currently Amended) ~~The brake rotor as defined in claim 1.~~ A brake rotor, comprising:

an annular disc having first and second brake portions, the first brake portion being connected to an annular mounting flange;

a radially inner flange wall defined by the annular mounting flange, the radially inner flange wall having a plurality of circumferentially spaced mounting holes;

a plurality of recesses in the radially inner flange wall, each recess being disposed circumferentially between adjacent mounting holes; and

a plurality of ventilation vanes positioned between the first and second brake portions, wherein at least one ventilation vane includes an inner vane portion extending inwardly of a radially inner edge of the second brake portion in whichwherein the inner vane portion axially overlaps the second brake portion.

16. (Previously Presented) A brake rotor, comprising:

an annular mounting flange having a first radial inner wall surrounding an axis of rotation;

a first brake portion connected to the annular mounting flange and defining a first braking surface;

a second brake portion spaced apart from the first brake portion and defining a second braking surface facing opposite from the first braking surface, the second brake portion having a

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second radial inner wall positioned further away from the axis of rotation than the first radial inner wall;

a plurality of circumferentially spaced mounting holes formed within the annular mounting flange;

a plurality of recesses formed within the first radial inner wall wherein each recess is disposed circumferentially between adjacent mounting holes; and

a plurality of ventilation vanes extending between the first and second brake portions wherein at least one ventilation vane has an inner vane portion that extends radially inwardly of the second radial inner wall.

17. (Previously Presented) The brake rotor as defined in claim 16, wherein at least one other ventilation vane extends radially inwardly only as far as the second radial inner wall.

18. (Previously Presented) The brake rotor as defined in claim 17, wherein the annular mounting flange is axially offset from the second brake portion along the axis of rotation.